LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES SECTION

PART VI –C (ARCHIVES)

WATERBODY MANAGEMENT PLAN SERIES

BAYOU D'ARBONNE LAKE

AQUATIC VEGETATION TYPE MAPS
AND NARRATIVES

2005 Type Map

Summary of Vegetation Survey Conducted 8/26/05 – 9/20/05

CORNEY (Hog Pen Landing – Hwy. 2 Bridge)

No submerged vegetation was seen in the main Corney channel from Hog Pen Landing south to the lake. Alligatorweed (a.w.) and water primrose (w.p.) were present in small isolated patches in the channel, but were more abundant in some of the sloughs. Primrose was abundant in the coves where the creek enters the lake. Primrose and a.w. were growing out to 15 yards from the shore in this same area. Coontail (c.t.) and fanwort (f.w.) were found underneath the mats of a.w. and w.p. Boatwright bay consisted of approximately 30% coverage of this type. No vegetation was found going north up the Boatwright channel markers until near the last marker, where c.t., f.w., and Chara became nearly 100% to the upper end of the cove. This area is fairly shallow. For the rest of the Corney branch south to the Hwy. 2 bridge, submerged vegetation is mainly restricted to the shallows around the islands and in shallow areas near the shoreline. Chara is the predominant submersed, but there are also some scattered small patches of c.t. Alligatorweed and w.p. are the only emergents and are found in low amounts in small isolated patches along the shoreline. There is probably no more than 1% emergent vegetation between the Hwy. 2 Bridge and Boatwright Creek.

D'ARBONNE BAYOU (Gill's Ferry – Forks Ferry)

Aquatic vegetation on south bank up to Edmond's Creek limited to fringe on exposed shoreline and more prevalent in protected areas. Emergent species are predominant, including Alligatorweed, water primrose, and American lotus. Submerged species include coontail, American pondweed, and Hydrilla. This is the 1st observation of Hydrilla in D'Arbonne Lake. It covered about an acre in the immediate vicinity of the Tech Landing.

In the upper end of D'Arbonne creek (past Edmond's Creek), vegetation was extensive (approx. 75%). Emergents (listed above) formed a fringe with patches located in shallow areas. Submergent species including Chara, coontail were mixed with filamentous algae covering shallow open areas. Species observed included:
Water hyacinth, American pondweed, Hydrilla, Alligator weed, American lotus, White water Lilly, Water primrose, Chara, Coontail, Elephant ears, Filamentous algae.

FORKS FERRY AREA (Hwy. 33 bridge – Hwy. 2 bridge)

The vast majority of aquatic vegetation in this area of the lake occurred in the shallows around the islands south of the Corney bridge and in the backs of Dozier and Mill Creeks. Alligatorweed is growing out to 30yds from the shoreline at the Corney islands. There is also an unidentified sp. growing with the a.w. It resembles a.w. but has a purple flower (water willow?). Chara and filamentous algae are the only submergent species around this area. Water hyacinth (w.h.) was found in the back of Dozier Creek above the bridge in moderate amounts. Some a.w. and unidentified purple flower were also present. Small scattered patches of a.w. were seen along the shoreline in the Mill Creek cove. A few w.h. were growing along shore in Mill Creek. A small field of American lotus was growing near the gravel boat ramp just south of Mill Creek. The rest of the shoreline in the Forks Ferry area was mostly void of any vegetation.

STOWE CREEK (above Hwy. 15 bridge)

Approximately 50% of the shoreline in Stowe Creek had emergent vegetation growing on it. Water primrose and a.w. became more abundant towards the upper end. Submerged species included Chara and coontail. They were found in patches along the lower half, with some extending 30yds from shore. The cove on the west side had extensive a.w. and smartweed and large patches of c.t. comprising approximately 70% of this cove. The upper end of Stowe was comprised of 80% a.w. and c.t. The east bank was 60% – 70% vegetated, including a.w., smartweed, w.p., patchy c.t., filamentous algae, and Chara. Submergent vegetation in this area of the lake approaches 10%.

MAIN LAKE (below Hwy.15 and Hwy. 33 bridges)

Vegetation is very scarce in this part of the lake. Small amounts of w.p. and a.w. were seen in some of the shallow coves, but the main shoreline is void of plants. The majority of the vegetation in this area of the lake was found in Bear Creek. Chara was the dominant submersed in the shallowest areas, while w.p. and a.w. made up the majority of the emergents.

2007 Type Map

D'Arbonne Lake Type Map
2007
Summary of Aquatic Vegetation Survey

Prepared by Ryan Daniel

Personnel of the Inland Fish Division surveyed D'Arbonne Lake in Union Parish for all types of aquatic vegetation from Aug. 16 to Aug. 21. Surveys were conducted by traveling the entire shoreline by boat and noting the presence and abundance of all species. Personnel taking part in this survey included Mike Wood, Ryan Daniel and Randy Lively. The lake level on Aug. 20 was 80.16 ft. (pool stage is 80'). D'Arbonne, being a large lake at approximately 16,000 acres, was divided into 4 distinct zones for this survey to better describe the vegetation communities in each of the different habitats of the lake. Descriptions of the zones are as follows:

Little D'Arbonne: the western "arm" of the lake, from the point where Middle Fork Bayou and D'Arbonne Bayou converge at the far west end to where it opens up into the main lake area north of the Hwy. 33 bridge near the Tech Landing boat ramp.

Corney Creek: the north "arm" formed by Corney Creek, north of the Hwy. 2 bridge, extending northwest to into the natural channel of Corney Creek to the Hog Pen Landing boat ramp.

Forks Ferry Area: the open water area immediately north of the Hwy. 33 bridge where Corney Creek and D'Arbonne Bayou converge, extending north to the Hwy. 2 bridge and where D'Arbonne Bayou becomes constricted near the Tech Landing boat ramp.

Main Lake and Stowe Creek: all areas of the lake south of the Hwy. 33 bridge to the spillway and above the Hwy. 15 bridge in Stowe Creek to the Millard Hill Rd. bridge.

Little D'Arbonne Survey (8/16/07)

Hydrilla *Hydrilla verticillata* was the most common submersed species in all areas of this arm east of the Mixing Hole (see map). It formed extensive surface mats on some of the shallower flats and was growing around much of the shoreline in depths to nearly 5 feet. The primary SAV (submersed aquatic vegetation) west of the Mixing Hole was fanwort *Cabomba caroliniana* with coverage averaging 75% in the shallow flats up the D'Arbonne arm. Muskgrass *Chara sp.* was mixed in with the hydrilla and fanwort in several areas. Illinois pondweed *Potamogeton illinoensis* was common in areas west of the State Park, forming large mats with fanwort and hydrilla in several areas. Hydrilla and Ill. pondweed were abundant around the islands near the State Park. Coontail C*eratophyllum demersum* was common throughout much of this zone, although it rarely formed dense mats. Much of the shoreline in this area of the lake was lined with water willow *Justicia americana*. Water primrose was found in some of the shallower areas, especially farther up the creek. American lotus *Nelumbo lutea* formed large mats, some covering several acres in the shallow flats in the Cypress Island area. Lotus was also found in smaller patches throughout the arm, and growing along the shoreline and islands where the channel becomes narrower in the west end. Water hyacinth *Eichhornia crassipes* was found scattered in the upper reaches of the arm, but not forming any mats.

Filamentous algae was present on the bottom in some shallow areas.

Corney Creek Survey (8/20/07)

Hydrilla was concentrated in the immediate vicinity of the Hwy. 2 boat ramp. It's abundance diminished rapidly going eastward along the north Hwy. 2 shoreline, where it was found no farther than a few hundred yards from the ramp. It extended north along the west shoreline above the bridge for only approximately 300 yards and only in small amounts just south of the bridge. The western shoreline is very steep, thus limiting its growth to the immediate shoreline. Coontail was the dominant SAV in this section of the lake with the exception of the area known as "The Flats", where fanwort and chara formed extensive mats. These mats comprised approx. 50% surface coverage in this shallow area. Coontail was prevalent in moderate amounts in much of the shallow water adjacent to the shoreline. Southern naiad *Najas guadalupensis* was also found in the shallows, forming dense mats in a few areas. Chara and filamentous algae were also observed throughout much of the Corney arm. Primrose was the dominant emersed species, forming large mats in the upper end and growing along much of the shoreline and in the backs of coves. Lizard's tail *Saururus cernuus* was the most common marginal species, but was not very abundant. It was found mostly on the lower end. The only significant amount of water hyacinth was found around the islands directly north of the Hwy. 2 bridge near the area known as the horseshoe.

Forks Ferry Area Survey (8/21/07)

Very little SAV was observed in this zone, with the exception of the western shoreline. The west shoreline had hydrilla with some Ill. pondweed growing in the shallows from Folly Beach north to the mouth of Little D'Arbonne. There are extensive hydrilla mats in the flats between Folly Beach and Tech Landing in Little D'Arbonne. The only other rooted hydrilla was observed at the Dozier Creek bridge, although many fragments were seen floating in the northeast portion of this zone due to prevailing winds. Coontail was very sparse in the entire area. There were a few clumps of water willow on the eastern shore and northern shore along with some lizard's tail. Primrose was found in the backs of Mill and Dozier Creeks and a small amount in the Corps ramp cove adjacent to Hwy. 33. One small patch of lotus near the gravel ramp on the east shoreline was still present, as it has been for many years. The area above the bridge in Dozier Creek had approximately 50% surface coverage of filamentous algae along with a few clumps of water hyacinth. Duckweed, *Lemna spp.* was floating in the filamentous algae.

Main Lake and Stowe Creek Survey (8/21/07)

The northern end of Stowe Creek above the Hwy. 15 Bridge had a significant amount of vegetation. Primrose formed a near solid mat in the upper 1/4th of Stowe Creek. Coontail was found underneath the mats and in moderate levels along both east and west shorelines. Approximately 30% of the shoreline in Stowe had primrose growing from it. A small amount of bladderwort *Utricularia purpurea* was also observed. The main lake area was mostly void of any vegetation. The suspected reasons for this include high wind action, abundant seawalls, and rocky substrate. The Bear Creek area did have primrose forming mats in the back of it, along with some coontail in the shallow areas.

Overall Summary

The only real surprise for this year’s survey was the expansion of the hydrilla. It was first detected in 2005 in close proximity to the Tech Landing boat ramp. It has spread significantly north into Little D'Arbonne to the area known as the Mixing Hole. It was also observed in proximity to the Hwy. 2 boat ramp in Corney Creek. This appears to be a rather new infestation and not believed to have naturally become established from the Little D'Arbonne infestation. The majority of the SAV in D'Arbonne Lake is found in the upper reaches of Little D'Arbonne and Corney Creek in the vast shallow areas, where it has historically been abundant. Coontail is the only significant SAV in the main lake and Stowe Creek. The main lake area will most likely continue to be nearly void of vegetation due to reasons listed previously. Water hyacinth, although observed in a few locations, was not a problem. The lotus field in the Cypress Island area is expansive but causes no problems to boaters or homeowners. Currently, there are no significant negative impacts to the users of D'Arbonne Lake due to aquatic vegetation. Overall, there is significant diversity in the aquatic plant community throughout the lake and it is believed to be at an expected and desired amount.